

Title (en)  
PRESSURE REDUCING VALVE AND GAS REGULATOR

Title (de)  
DRUCKVERMINDERUNGSVENTIL UND GASREGLER

Title (fr)  
SOUPAPE DE DÉTENTE DE PRESSION ET REGULATEUR DE GAZ

Publication  
**EP 1715400 B1 20200212 (EN)**

Application  
**EP 05709988 A 20050209**

Priority

- JP 2005001936 W 20050209
- JP 2004033595 A 20040210
- JP 2004033596 A 20040210
- JP 2004033597 A 20040210

Abstract (en)  
[origin: EP1715400A1] A regulator for gas having a diaphragm rod held at the center of a diaphragm of which rim is sandwiched between a body and a cover via diaphragm retainers, and a valve element capable of seating itself at a valve seat fixedly placed in the body with a valve hole opening at the center provided in an intermediate portion of a valve axis having its one end detachably coupled to the diaphragm rod and its other end slidably fitted in a guide opening provided on the body side, wherein the body (34) is equipped with a valve action unit (120) formed by assembling in advance a valve seat member (100) having a valve hole (111) and the valve seat (112) provided thereon, a guide member (106) having a guide opening (105) and pressed into the valve seat member (100), and a valve axis (114) having a valve element (113) provided thereon in a state of having one end of the valve axis (114) projected from the valve hole (111) and the other end of the valve axis (114) slidably fitted into the guide opening (105). It is thereby possible to reduce machining cost and improve assembly conformance.

IPC 8 full level  
**F02M 21/02** (2006.01); **G05D 16/06** (2006.01); **G05D 16/16** (2006.01)

CPC (source: EP US)  
**F02M 21/0233** (2013.01 - EP US); **F02M 21/0239** (2013.01 - EP US); **F02M 21/0245** (2013.01 - EP US); **G05D 16/0666** (2013.01 - EP US); **G05D 16/163** (2013.01 - EP US); **F02M 21/0215** (2013.01 - EP US); **F02M 21/0227** (2013.01 - EP US); **Y02T 10/30** (2013.01 - EP US); **Y10T 137/0491** (2015.04 - EP US); **Y10T 137/0497** (2015.04 - EP US); **Y10T 137/7613** (2015.04 - EP US); **Y10T 137/7757** (2015.04 - EP US); **Y10T 137/7793** (2015.04 - EP US); **Y10T 137/7794** (2015.04 - EP US); **Y10T 137/7801** (2015.04 - EP US); **Y10T 137/782** (2015.04 - EP US); **Y10T 137/794** (2015.04 - EP US); **Y10T 137/87917** (2015.04 - EP US)

Cited by  
WO2011073622A1; ITVI20090133A1; CN102725706A; CN102297045A; EP3467291A1; EP3467292A1; US8490604B2; EP2131033A3; EP2363589A3; EP2484947A4; EP2182262A4; EP3467290A1; WO2024115000A1; US10859009B2; US8714178B2; US11585297B2; WO2024120696A1; JP2009293487A; WO2024120694A1; WO2024120691A1; US9195241B2; US9483060B2

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**EP 1715400 A1 20061025**; **EP 1715400 A4 20131225**; **EP 1715400 B1 20200212**; MY 144417 A 20110915; US 2008047618 A1 20080228; US 2011174388 A1 20110721; US 8459288 B2 20130611; WO 2005076097 A1 20050818

DOCDB simple family (application)  
**EP 05709988 A 20050209**; JP 2005001936 W 20050209; MY PI20050461 A 20050207; US 201113078412 A 20110401; US 58872305 A 20050209